HEADQUARTERS
MULTI-NATIONAL CORPS-IRAQ
BAGHDAD, IRAQ
APO AE 09342

REPLY TO
ATTENTION OF:

FICI-MD

6 MAY 2008

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: MNC-I Policy on Mild Traumatic Brain Injury

1. REFERENCES:

a. Defense and Veterans Brain Injury Center, Mild Traumatic Brain Injury Clinical Practice Guideline and Recommendations, 22 Dec 06.

b. Joint Theater Trauma System Clinical Practice Guideline, Theater Screening and Management of Mild Traumatic Brain Injury (Concussion), Oct 07.

c. Military Acute Concussion Evaluation (MACE) Defense and Veterans Brain Injury Center, Aug 06.

2. PURPOSE. To provide theater-specific guidance for the medical evaluation, management and documentation of mild traumatic brain injury (mTBI)/concussion.

3. APPLICABILITY. This policy applies to all medical personnel in the Iraq Theater of Operations who are directly or indirectly involved in the provision of healthcare to patients with confirmed or suspected concussive injuries.

4. BACKGROUND. During the current conflicts in Iraq and Afghanistan, traumatic brain injury (TBI) has the potential to cause significant morbidity. Traumatic brain injury is categorized by severity as mild, moderate and severe (see table below). Identification of mild traumatic brain injury (mTBI) is often complex and difficult. Assessment and management of mTBI in operational settings provide a unique set of tactical challenges that must be considered when balancing patient care and mission goals. Appropriate documentation of the evaluation and management in the patient's medical record (electronic medical record) is important to ensure there is a longitudinal record for current and future medical care.

5. DEFINITION. Mild traumatic brain injury (concussion) in military operational settings is defined as an injury to the brain resulting from an external force and/or acceleration/deceleration mechanism from an event such as a blast, fall, direct impact, or motor vehicle accident which causes an alteration in mental status. Temporally related symptoms may include: headache, nausea, vomiting, dizziness/balance problems, fatigue, insomnia/ sleep disturbances, drowsiness, sensitivity to light/noise, blurred vision, difficulty remembering and/or difficulty concentrating. Temporally related

symptoms in and of themselves do not constitute a diagnostic indicator of an mTBI. There must be a well-documented history of concussive event and an alteration of consciousness or mental status change.

6. EXECUTION.

a. TASKS TO SUBORDINATE UNITS AND STAFF:

(1) MND-B, MND-C, MND-N, MNF-W, TF62, 316 ESC, AND CJSOTF-AP

(a) Leaders should suspect a mild traumatic brain injury for all personnel exposed to, or involved, in a blast, fall, vehicle crash, or direct head impact who lose consciousness, have an amnestic event (i.e., can't remember events before, during, or after injury), or become dazed or confused, even if momentarily. Ensure these personnel are evaluated by a medical provider (defined as licensed providers, which include physicians, physician assistants, and nurse practitioners). This evaluation must be performed as soon as possible following the event, as permitted by operational factors.

(b) MND/F surgeons, medical officers in separate units, and medical unit commanders will ensure all medical providers are familiar with the Primary Care Management of Concussion in a Deployed Setting (enclosure 1) and the Military Acute Concussion Evaluation (MACE)(enclosure 2). For the initial in-theater evaluation and management of possible mTBI (concussion), providers should complete a history and physical exam, with focus on the neurological examination. This encounter should include at a minimum the MACE history (questions I – VIII). The medical encounter will be documented in the patient's electronic medical record.

b. COORDINATING INSTRUCTIONS.

(1) Any U.S. service member or other person involved in a blast, fall, vehicle crash, or direct impact who becomes dazed, confused or loses consciousness (even if momentarily) must be further evaluated by a licensed independent healthcare provider. There may be geographic or operational constraints that limit the timely evaluation by a licensed independent provider, requiring initial evaluation by a medic (68W or equivalent).

(2) Many times a patient will experience a combination of physical, cognitive and behavioral symptoms. Wide consensus among experts supports the inclusion of an alteration of consciousness in the definition of mTBI. The degree of alteration of consciousness may range from inability to process thoughts to actual complete loss of consciousness.

(3) Providers should follow the guidelines outlined in enclosure 1 for the initial management of mTBI in the ITO. This refines the algorithms in the referenced DVBIC and JTTS CPG into a streamlined primary care management for deployed settings. This algorithm is a guideline and should not substitute for clinical judgment. An abbreviated algorithm is included for medics in remote settings.

(4) The MACE is simply a screening tool. A low MACE score without appropriate mechanism of injury and symptoms consistent with mTBI can not be used as diagnostic criteria for mTBI.

(5) Pertinent signs and symptoms of concussion/mTBI may represent clinically relevant neurocognitive impairment and require further evaluation. Determine if evacuation to another level of care is warranted per the concussion management guidelines in enclosure 1.

(6) For mTBI that is managed locally, medical personnel will provide the medical follow-up plan and appropriate profiling that allows the individual time to recuperate. Typically, the mTBI profile should include no duty "outside the wire" for a specified period of time and until medically cleared. A sample profile is provided in enclosure 3. Medical clearance is a clinical decision based on many factors. At a minimum, it must include symptom resolution at rest and after exertional testing.

(7) Providers will monitor for persistent symptoms and neurological findings. Manage post-concussive symptoms as clinically appropriate, avoiding narcotics, non-steroidal inflammatory medications and aspirin until cleared to return to duty. Continue rest/light duty if the individual remains symptomatic (at rest and after exertional testing) or evacuate to an appropriate level of care when red flags are present or signs/symptoms persist beyond seven days.

(8) When symptoms resolve at rest and after exertional testing, administer and score the complete MACE examination (questions IX-XIII). If the MACE score is 25 or higher, the individual can return to duty with follow-up as necessary. If the MACE score is 24 or less, rest for 24-to-48 hours and repeat the MACE examination using an alternate form (if available).

(9) If neurocognitive function remains impaired (repeated MACE score of 24 or less), contact or refer to a psychologist (or other trained provider) at the current location for neurocognitive testing. If such resources are unavailable locally, consult with the nearest psychologist regarding the need for further testing versus continued rest in place.

(10) Ensure appropriate diagnosis coding is utilized for these initial medical encounters. The diagnosis of concussion/mTBI should be based on the military operational definition provided above. Applicable diagnosis and ICD-9 codes include:

(a) No concussion (list other diagnoses as appropriate)
(b) Possible concussion further evaluation required
(c) 850.0 - Concussion without loss of consciousness (LOC)
(d) 850.1 - Concussion with loss of consciousness (LOC)
(e) E979.2 Injury from terrorist explosion blast (secondary code)

(11) Medical evacuation to higher echelon of care or out of theater is not dependent on the number of concussive events. It will be based on the clinical guidelines and medical provider's judgment.

(12) Purple Heart Awards: Each service has established criteria for entitlement of a Purple Heart. For Army forces, a diagnosis of concussion must include the military operational definition of mTBI and must have evidence and medical record documentation of an alteration of consciousness. In many cases mTBI with minimum medical intervention will not warrant this award. Providers should not discuss Purple Heart criteria with patients.

Categories of Traumatic Brain Injury by Severity

Severity	GCS	LOC	PTA
Mild	**13–15**	**<1 hr**	**<24 hr**
Moderate	**9–12**	**1 – 24 hrs.**	**>24 hrs to <7days**
Severe	**3–8**	**>24 hrs.**	**>7 days**

GCS = Glasgow Coma Scale; LOC = Loss of consciousness; PTA = Post traumatic amnesia

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7. **POINT OF CONTACT:** MNC-I Deputy Surgeon for Clinical Operations at DSN 318-822-2414, Email: DLMNC-ISURGEONFHP@iraq.centcom.mil.

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4 Encls
1. Primary Care Mgt of Concussion in a Deployed Setting
2. Military Acute Concussion Evaluation (MACE) with Alternate Exams
3. Sample Concussion/mTBI Profile
4. Patient Information Sheet

Distribution:
MND-N, SG
MND-B, SG
MND-C, SG
MNF-W, SG
TF62, CHOPS
TF62, CLINOPS
316th ESC, SG
CJSOTF-AP, SG